## *Purchase of Lumina's Analytica Software*
## *For Use in Electricity and Natural Gas Assessments*

**Contact:**  Melissa Jones & Ivin Rhyne

**Action Requested:**  Seeking approval of the purchase of 5 licenses and training for Analytica Software, in the amount of $38,960, at an Energy Commission Business Meeting for use in electricity and natural gas assessments.

**Business Meeting Date:**  April 10, 2013

**Background:**  The Electricity Analysis Office (EAO) staff is currently using Lumina's Analytica software for the cost of generation work being conducted in the 2013 IEPR. Staff also has a Work Authorization (WA) under the Aspen Technical Support Contract in which it is employing low resolution exploratory modeling to assess deep uncertainties associate with long term electricity policy analysis and planning. Lumina is a subcontractor under the WA who is assisting the staff in developing low resolution models using Analytica. Several staff members on the project will be helping to construct and run the models. In addition, EAO staff will be using Analytic for other electricity and natural gas assessment activities. Consequently, additional licenses and training for Analytica are necessary.

Analytica is a user friendly platform that runs on a desktop computer and allows staff to run multiple scenarios with a range of values for different uncertain variables or parameters quickly and easily. Analytica will allow staff to construct low resolution models that can work with spreadsheets to support integrated analysis of uncertainty and risk. Staff will use Analytica to employ Monte Carlo and other sampling and analytical techniques necessary to assess a wide range of sensitivities or scenarios. Analytica allows the results from a multiple sensitivities and scenarios to be easily displayed in tables and graphs, including Tornado charts, so staff can view and compare outputs (e.g. cost, GHG emissions, etc.) associated with computer runs.